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Presentation Outline

- Introduction
- Brief Concept Description
- Company Profile
- Construction
- Final Assembly
- Designing and Tooling
- Technical Specifications



Product Description

Bullfrog Boats are an innovation on the Rigid Hull Inflatable (Rib) design that incorporates a floatation collar system. These floatation collar boats utilize a rotationally molded polyethylene foam filled collar that is mechanically attached to an aluminum bottom. The hull provides the boat's structure and the tubes provide a tremendous amount of reserved buoyancy while acting as gunnels for the boat.



- 6 year old company
 - Floatation Collar Boat
 - Reliability & Durability
 - Performance improvement over RIBS
 - Material selection
 - Buoyancy and handling characteristics
 - Product evolution
 - Originally just 10ft tender boats
 - Pleasure boat market
 - Complete product line with 15,17,&21 foot models introduced over the past 2 years
 - Introduction of a 12 & 25 model this summer
- Have sold to date over 130 model Bullfrogs



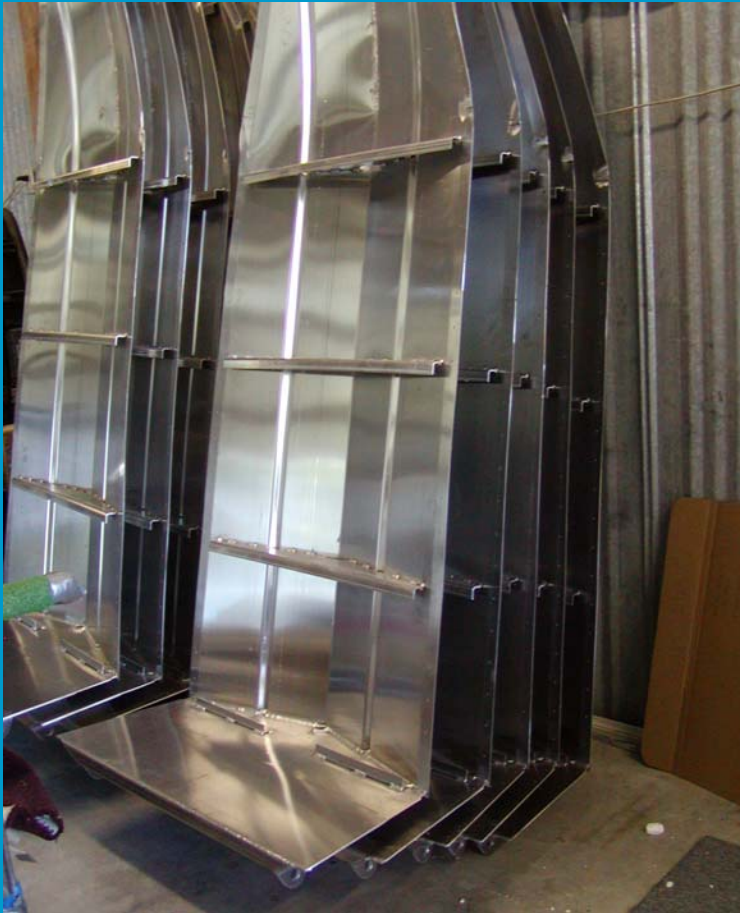




10ft Yacht Tender

- LOA 10'
- Weight 215 lbs. (dry)
- Capacity 3 persons or 589 lbs.
- Beam 5'6"
- Max HP 20





- 10ft Bottoms
 - 5052-0.10" marine grade aluminum
 - Manufactured in sets of 20
- Mechanically Fastened
 - 1/4" Bolts
 - Sealed w/ a polybutyle tape



15ft Super Sport w/ a Suzuki 80Hp

- LOA 15'4"
- Weight 865 lbs. (dry)
- Max. capacity 6 persons or 875 lbs.
- Beam 7'4"
- Max HP 80

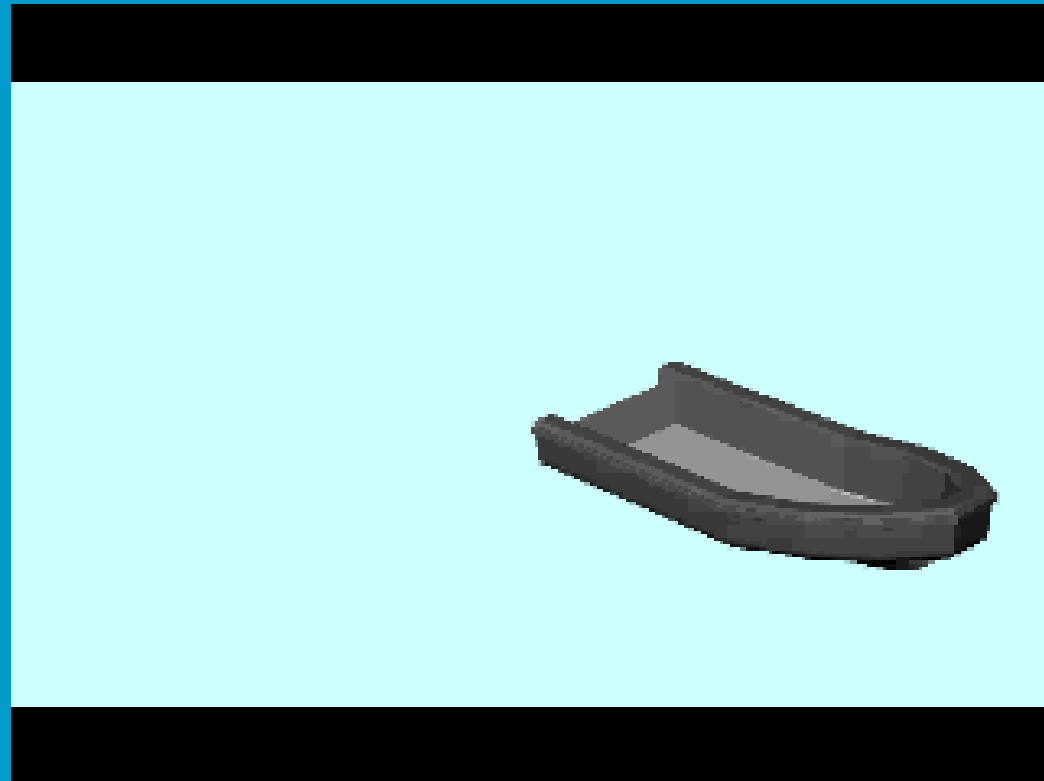
Bullfrog BOATS





Modular Construction

- Polyethylene floatation collar
 - Bow section
 - 5' middle sections
 - 7'9" stern section
- Aluminum hull sections
- Advantages
 - Repair and replacement
 - Ease of production
 - Adaptability



Modular Component Demonstration





Construction

- Welded aluminum hulls
 - 100% inside and outside welds
 - Marine grade aluminum
 - 5052-0.10" on the 10' boats
 - 5086-0.125" – 0.190" for 15'-17'
- Polyethylene floatation collar
 - Rotationally molded
 - 1/4" to 3/8" wall thickness and can be made to 1/2"
 - Ultra Violet Weathering can be extended to 20 years.
 - Elongation to 1000%



Aluminum Hull Manufacturing

- CNC laser and waterjet
 - Ease of production
 - Repeatability
 - J.I.T. subcontracting











Computer controlled 2 axis molding

- 1/4" to 3/8" wall thickness
- Molded in graphics and hardware



Rotational Molding Process

Cycle time 45min-1hr







Component Attachment

- Two Stage Process
 - Plastic components
 - Modular sections bolted together
 - 20ea. 3/8" stainless bolts
 - Sealed between sections
 - Plastic and aluminum
 - Aluminum hull mechanically fastened to plastic collar
 - 5/16" stainless steel bolts approx. every 2-3/4"
 - Sealed between aluminum and plastic below floor line with polybutyle tape







Final Assembly

- Adjustable properties for various configurations
 - Reverse chine
 - Console, pilot houses, or cuddy cabins
 - Transom brackets
- Fill floatation collar w/ two part polyurethane foam



Reverse chine offers tunnel hull handling characteristics



Filling a 21ft Offshore Ranger with floatation foam



Designing and Tooling

- An evolution process
 - Original design
 - Skill saw
 - Hand drawings
 - Mechanical fastening of plastic and aluminum
 - Improves the ability for production
 - Current designs
 - 3D solid modeling
 - Reduces tooling costs
 - CNC machining for tooling development



3D Solid Modeling

New Product Design



Aluminum Mold Manufacturing

- CNC laser and waterjet
 - Ease of fabrication







Bullfrog BOATS





17ft Super Sport

Hard Top and Pilot House

Open Console









21ft Offshore Ranger



Introducing the totally unsinkable Ranger - the newest member of the Bullfrog family! Designed to be used, the rugged Ranger's nearly indestructible construction holds up under extreme conditions. Whether you're a fisherman or diver or just like to explore Washington's rocky coastline, you can fully experience a worry-free day on the water in the safe, reliability of the Ranger. This "pickup truck for the sea" is the obvious choice for the serious boater!

LOA:	21' 0"	Beam:	8' 4"
Weight (without motor):	1600 Lbs.	Maximum Horsepower	225
Max Capacity / Pounds:	1200 Lbs.	Maximum Capacity / Persons:	8
Fuel Capacity:	60 Gal.	25 degree Deep V Hull	

Standard Equipment

Railings	Included	Hydraulic Steering	Included
Pilot House with Hard Top	Included	Running Lights	Included
Bilge Pump	Included		

MSRP: (without motor)	\$24,995.00		
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Optional Equipment

Radar Arch	STBD		
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* Prices Include Installation
All prices subject to change without notice.

17ft Super Sport



Introducing the new 15' Super Sport - One of the most rugged and durable boats ever produced! Totally unsinkable, this "Pickup Truck for the Sea" is great for diving, fishing or just exploring. The Super Sport's 22-degree deep "V" Aluminum Hull gives you a soft ride, even in inclement weather conditions. The three compartment polyethylene tubes with flotation foam will never scratch your fiberglass yacht.

LOA:	15' 4"	Beam:	7' 4"
Weight (without motor):	865 Lbs.	Maximum Horsepower	90
Max Capacity / Pounds:	875 Lbs.	Maximum Capacity / Persons:	6
Fuel Capacity:	28 Gal.		

Standard Equipment

Railings	Included	Steering	Included
Console with Windshield	Included	Running Lights	Included
Bilge Pump	Included		

MSRP: (without motor)	\$10,950.00		
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All prices subject to change without notice.



Things are hopping at Bullfrog Boats



Thank you for your interest and enthusiasm

ANY QUESTIONS?